

Amendments to the Specification:

Please amend the CROSS-REFERENCE TO RELATED APPLICATION section on page 1 as follows:

This application is a divisional application of United States Patent Application No. 09/589,380 entitled "APPARATUSES AND METHODS FOR IN-SITU OPTICAL ENDPOINTING ON WEB-FORMAT PLANARIZING MACHINES IN MECHANICAL OR CHEMICAL-MECHANICAL PLANARIZATION OF MICROELECTRONIC-DEVICE SUBSTRATE ASSEMBLIES," filed on June 7, 2000, now U.S. Patent No. _____, 6,612,901, issued _____, September 2, 2003, which is hereby incorporated by reference in its entirety.

Please amend the paragraph at lines 7-22 of page 7 to read as follows:

Figure 2 is a partially schematic isometric view of a web-format planarizing machine 100 including an optical reflectance system 107 and a position monitor 160 in accordance with one embodiment of the invention. The planarizing machine 100 has a table 102 including a stationary support surface 104, an opening 105 at an illumination site in the support surface 104, and a shelf 106 under the support surface 104. The planarizing machine 100 also includes an optical emitter/sensor 108 mounted to the shelf 106 at the illumination site. The optical emitter/sensor 108 projects a light beam 109 through the opening 105 in the support surface 104. The optical emitter/sensor 108 can be a reflectance device that emits the light beam 109 and senses a reflectance to determine the surface condition of a substrate 12 in-situ and in real time. Reflectance and interferometer endpoint sensors that may be suitable for the optical emitter/sensor 108 are disclosed in U.S. Patent Nos. 5,865,665; 5,648,847; 5,337,144; 5,777,739; 5,663,797; 5,465,154; 5,461,007; 5,433,651; 5,413,941; 5,369,488; 5,324,381; 5,220,405; 4,717,255; 4,660,980; 4,640,002; 4,422,764; 4,377,028; 5,081,796; 4,367,044; 4,358,338; 4,203,799; and 4,200,395; and U.S. Application Nos. 09/066,044 and U.S. Application No. 09/300,358, now U.S. Patents 6,075,606 and 6,213,845, respectively; all of which are herein incorporated by reference.

Please amend the paragraphs extending from page 7, line 30, to page 8, line 18 to read as follows:

The planarizing pad 150 has a planarizing medium 151 with a planarizing surface 154. The planarizing medium 151 can be an abrasive or a non-abrasive material. For example, an abrasive planarizing medium 151 can have a resin binder and abrasive particles distributed in the resin binder. Suitable abrasive planarizing mediums 151 are disclosed in U.S. Patent Nos. 5,645,471; 5,879,222; 5,624,303; and U.S. Patent Application Nos. 09/164,916 and 09/001,333, now U.S. Patents 6,039,633 and 6,139,402, respectively, all of which are herein incorporated by reference.

Figure 3 is a cross-sectional view partially illustrating the web-format planarizing pad 150 and the optical emitter/sensor 108 in greater detail. This embodiment of the planarizing pad 150 also includes an optically transmissive backing sheet 1610 under the planarizing medium 151 and a resilient backing pad 170 under the backing sheet 1610. The planarizing medium 151 can be disposed on a top surface 162 of the backing sheet 1610, and the backing pad 170 can be attached to an under surface 164 of the backing sheet 1610. The backing sheet 1610, for example, can be a continuous sheet of polyester (e.g., Mylar®) or polycarbonate (e.g., Lexan®). The backing pad 170 can be a polyurethane or other type of compressible material. In one particular embodiment, the planarizing medium 151 is an abrasive material having abrasive particles, the backing sheet 1610 is a long continuous sheet of Mylar, and the backing pad 170 is a compressible polyurethane foam. In other embodiments, the planarizing pad 150 has only one of the backing sheet 1610 or the backing pad 170 without the other.

Please amend the paragraph at lines 3-14 of page 9 to read as follows:

The embodiment of the planarizing pad 150 shown in Figures 2 and 3 allows the optical emitter/sensor 108 to detect the reflectance 109 from the substrate 12 in-situ and in real time during a planarizing cycle on the web-format planarizing machine 100. In operation, the carrier assembly 130 moves the substrate 12 across the planarizing

surface 154 as a planarizing solution 144 (Figure 2) flows onto the planarizing pad 150. The planarizing solution 144 is generally a clear, non-abrasive solution that does not block the light beam 109 or its reflectance from passing through the window 180b aligned with the illumination site. As the carrier assembly 130 moves the substrate 12, the light beam 109 passes through both the optically transmissive backing sheet 161 and the window 180b to illuminate the face of the substrate 12. The reflectance returns to the optical emitter/sensor 108 through the window 180b. The optical emitter/sensor 108 thus detects the reflectance from the substrate 12 throughout the planarizing cycle.